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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,154	03/29/2001	Neil G. Jacobson	X-777 US	8118
24309	7590	09/28/2004	EXAMINER	
XILINX, INC ATTN: LEGAL DEPARTMENT 2100 LOGIC DR SAN JOSE, CA 95124			CRAIG, DWIN M	
			ART UNIT	PAPER NUMBER
			2123	

DATE MAILED: 09/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/823,154

Applicant(s)

JACOBSON, NEIL G.

Examiner

Dwin M Craig

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2, 3 & 5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. **Claims 1-28** have been presented for Examination. **Claims 1-28** have been Examined and rejected.

Priority

2. It is noted by the Examiner that the Applicant is not claiming any Priority to any Provisional or Non-Provisional Application.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. **Claims 1-28** are provisionally rejected under the judicially created doctrine of double patenting over **Claims 1-20** of copending **Application No. 09/968,439**. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

3.1 For Example, **Claim 1** of U.S. Patent Application 09/968,439 claims, “*a diagnostic software system operating within a remote electronic device where the software system includes one or more software components*” **Claim 1** of U.S. Patent Application 09/823,154 claims, “*A diagnostic device for diagnosing a programmable logic device that is embedded in an electronic system*”. It would have been obvious, to one of ordinary skill in the art, at the time the invention was made to have used the diagnostic software system of the 09/968,439 application to be used to program the programmable logic device and control the diagnostic device as claimed in the 09/823,154 application.

3.2 Further, the 09/823,154 application claims a *diagnostic device*. The 09/968,439 application claims, *A diagnostic system...operating within a remote electronic device*. The Examiner asserts that there is no functional difference between these two claimed limitations.

3.3 Further, where the 09/823,154 applications independent **Claim 1** claims, *the diagnostic control module including logic for collecting output signals generated by the programmable logic device in response to the diagnostic signals*, is functionally equivalent to the claim language in the 09/968,439 application where, *trace logic that collects diagnostic data while operating with the software system* is claimed.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. **Claims 1-15 and 17-27** are rejected under 35 U.S.C. 103(a) as being unpatentable over **“Diagnosis of Digital/Analog Measurement System with Application of Test Bus and Distributed Diagnostic Subsystem”** by Krzysztof Badzmirowski, Marek Gonera and Jerzy Kern, hereafter referred to as the *Badzmirowski et al.* reference, in view of **Guccione U.S. Patent 6,144,933**.

4.1 As regards independent **Claims 1, 13 and 23** the *Badzmirowski et al.* reference discloses an *embedded, diagnostics device* for debugging electronic devices with JTAG ports (**Figure 3 Page 492**) however, the *Badzmirowski et al.* reference does not expressly disclose an FPGA or performing the diagnostic work over a network.

The *Guccione* reference teaches testing an FPGA being tested over a network (**Figure 1-7 Col. 2 Lines 56-68**).

It would have been obvious, to one of ordinary skill in the art, at the time the invention was made, to have modified the teachings of the *Badzmirowski et al.* reference with the teachings of the *Guccione* reference because, by allowing remote diagnostics of *multiple* FPGA's over a network, large numbers of *FPGA* 's can be diagnosed for errors in a parallel fasion as opposed to have to perform the testing on each module individually.

4.2 As regards dependent **Claims 2, 3, 4, 6, 14, 15, 18, 20, 24, 25 and 27** the *Badzmirowski et al.* reference discloses boundary scan (**Section IV. SIGNAL ACQUISITION MODULES USING JTAG TEST BUS pages 493-494**), and test stimulus signals being generated and captured and analyzed on a self contained diagnostic system (**Figure 6 page 494**).

4.3 As regards dependent **Claims 8-12, 17, 21, 22 and 26** the *Badzmirowski et al.* reference does not expressly disclose the remote testing and configuration of field programmable Gate Arrays.

The *Guccione* reference discloses testing FPGA's and programming those remote FPGA's (**Col. 9 Lines 21-28**).

It would have been obvious, to one of ordinary skill in the art, at the time the invention was made to design a diagnostic system to remotely reprogram FPGA's so that when the FPGA is diagnosed with a problem, a new upload can be sent to the FPGA so that the diagnosed problem with be "*fixed*".

Allowable Subject Matter

5. **Claims 16 and 28** are objected to as being dependent upon a rejected base claim, *and being rejected under the judicially created NON-Statutory Double Patent Rejections, see*

paragraphs 3.1-3.3 above, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. **Claims 1-28** have been presented for Examination, **Claims 1-28** have been Examined and rejected. This action is **NON-FINAL**.

6.1 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwin M Craig whose telephone number is 703 305-7150. The examiner can normally be reached on 10:00 - 6:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Teska can be reached on 703 305-9704. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DMC


KEVIN J. TESKA
SUPERVISORY
PATENT EXAMINER